Testimony of
James J. Hoecker, Chairman
before the
Special Committee on the Year 2000 Technology Problem
United States Senate

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Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you to discuss Year 2000 readiness of the oil and natural gas industries. My name is James Hoecker, Chairman of the Federal Energy Regulatory Commission (FERC). I appear today as chair of the Oil and Gas Sector Working Group for the President's Council on Year 2000 Conversion (President's Council), which is composed of 12 Federal agencies and 27 industry groups.

The Working Group has actively supported the initiatives of the President's Council, including its Year 2000 Information Coordination Center and the outreach program called "Community Conversations". The Working Group maintains a website as part of its public outreach efforts and participates in a multi-industry working group composed of the oil and gas, electric, telecommunications, and transportation sectors, which was formed to foster cross-industry information sharing and contingency planning among these mutually interdependent parts of our infrastructure.

By way of background, the regulatory responsibilities of my agency do not extend to the Y2K issue and, even though the Commission regulates interstate oil and natural gas

transportation, its duties do not span all segments of the oil and gas industry. There is, however, a clear public interest in oil and natural gas service reliability that is akin to our routine functions. The role the Commission plays in this important process is therefore to facilitate the voluntary collaboration efforts by both federal agencies and industry associations to assess and promote industry-wide Y2K readiness within the Oil and Gas Sector Working Group of the President's Council.

Today I will focus my testimony on the results of the May 1999 readiness survey of the oil and natural gas industry, apprise the Committee of business continuity and contingency plans for these industries, and discuss our public outreach efforts.

When I testified before this Committee on June 12, 1998, I stated how important it is for industry and government to promote awareness of the Y2K problem and to cooperate in finding ways to ensure a high level of effort to identify and remediate it. We recognized at the time that information about oil and gas industry readiness was largely anecdotal and that coordinating the many and disparate segments of these diverse industries would not be easy. The oil and gas industries have worked hard in the intervening 14 months to meet this challenge. And, while the record is not perfect, it represents tremendous progress and a real commitment to protect the public and to ensure safe and reliable service.

The industry is committed to working hard to meeting these goals and I urge the Committee both to recognize that commitment and to continue to exercise oversight to ensure that oil and gas companies are not tempted to "coast" to the finish line. While my confidence in Y2K readiness is high, I will not tell you that, as of now, we have eliminated the possibility of loss of service in some parts of the market. As I will discuss later in my testimony, there are certain market participants, particularly at the retail or distribution end of the oil and gas delivery system, whose level of Y2K awareness and readiness is very difficult to assess.

Results of the Third Survey of Oil and Natural Gas Company Readiness

The results of our May 1999 survey were announced at our June 29, 1999, press conference. A fourth and concluding survey will be conducted soon and announced during September. We have announced September 30, 1999, as our benchmark date for full Y2K compliance. The Working Group is challenging all segments of the oil and gas industries to be 100% Y2K ready for all business systems, embedded systems, and contingency planning at that time.

The May survey results represent responses by 1,250 oil and gas industry companies. The responding companies account for 93% of the volume of oil and natural gas consumed domestically, which compares to 66% coverage in the September 1998 survey and 88% in the January 1999 survey (Appendix A - Summary).

The survey results reflect:

- 83 percent of oil and gas production volumes
- 92 percent of refinery capacity
- 99 percent of oil and natural gas pipeline transportation volumes
- 91 percent of natural gas distribution volumes
- 51 percent of retail gasoline service stations

This data shows that further efforts by the Oil and Gas Sector Working Group are needed to more effectively reach most industry segments but especially retail gasoline service station owners, and those efforts are under way.

As I just mentioned, the primary exception to the high levels of response and readiness is the retail service station sector. Of the approximately 180,000 service stations nationwide, only about one-half have responded to the survey. They largely tend to be affiliates of major petroleum companies or display their "brand". Many individual entities in the retail segment of the business (e.g., convenience stores, small independent station owners, or municipal gas utilities) have been difficult to identify and contact about the survey or about Y2K issues generally. However, the American Public Gas Association (APGA), whose members include the muncipal gas utilities, reports that 88% of their members are already Y2K ready, and 96% expect to be ready by September 30. Most report that their natural gas systems do not use computers except for billing. The Working Group hopes to improve its success in this area by working through state

agencies responsible for weights and measures that keep records related to individual retail gas stations, and by other outreach efforts.

Survey results show that a high percentage of respondents are in the later stages of fixing and testing business software and embedded systems. Ninety-one percent (91%) reported that their business systems are in the later remediation and testing phases--up from 86% in January and 55% in September (Appendix A - Chart 1). Ninety percent (90%) reported that their embedded systems, used for industry operations, are in remediation and testing--up from 78% in January and 46% in September (Appendix A - Chart 2). Increasingly, the focus of survey respondents is on supply chain issues that address readiness of critical suppliers of materials or services. Eighty-six percent (86%) expect to have all segments of the supply chain necessary to provide service ready by September 30. The survey reflects this shift in concern among gas and oil industry participants from the readiness of their own systems to the readiness of resource suppliers and vendors (Appendix A - Chart 3).

In a growing number of cases, survey numbers are supported by independent audits of validation and verification processes being performed by individual companies to verify that Y2K remediated programs were fixed correctly. A June survey on industry audits conducted by the American Petroleum Institute (API), which included companies that account for nearly 80% of oil and natural gas production nationwide, showed that

88% are performing independent audits. Moreover, a survey by the American Gas Association (AGA) shows that 50% of companies in the natural gas distribution sector have conducted independent audits with an additional 35% planning audits later this year for a total of 85%. All natural gas pipeline company members of the Interstate Natural Gas Association of America (INGAA) report they have conducted independent audits of their programs. These results help confirm and validate the results of our survey.

Business Continuity and Contingency Plans

Contingency planning is occurring both at a company level and an industry level. The May survey results show that 92% of respondents expect to have their contingency plans tested by September 30. While the risk of widespread interruptions of critical infrastructure functions is considered by the responsible trade groups to be low, the Working Group is nevertheless encouraging the industry to prepare for this critical scenario.

Oil and natural gas systems are generally well-equipped to be able to continue deliveries if electric power is interrupted, with gas-driven compressors or diesel fuel pumping facilities and back-up generators. Oil and natural gas operations are generally equipped with redundant voice communication systems that can support manual system operation if primary communication fails and disables the automated controls. Furthermore, unlike electric power and telecommunications which operate on a "real-time" basis, storage capabilities within the

oil and natural gas transportation and delivery networks afford the industry time to employ contingency plans to avert impacts on consumers.

Not only do operational and safety systems have built-in back-up capabilities in most cases, natural gas and oil production wells and distribution lines are backed up by storage facilities as well as "line pack", the quantity of gas contained within the pipeline itself at any point in time. During winter months, there is typically 30 days' worth of inventory built into the existing oil and natural gas supply chain. Further, there are many sources of supply both domestically and internationally. And, as of late May 1999, the U.S. Strategic Petroleum Reserve held 572 million barrels of crude oil. This is the equivalent of 38% of current daily oil imports for 90 days.

Contingency plans are a foundation of current day-to-day operations in the oil and natural gas industries. Systems can be, and often are, impacted by weather, natural disasters, equipment failures, or accidental damage, and service must be restored. According to industry representations, test results of equipment throughout the oil and gas industries indicate that probable consequences of the millennium bug are not any worse than these day-to-day risks. Nonetheless, we must expect Y2K problems to create unique stresses on these industries, and it is vital for companies to complete their contingency plans and conduct training and tests of contingency measures in a timely manner.

Y2K contingency plans are therefore additions to existing industry contingency plans. Existing contingency plans are routinely tested using "table-top" and "real-time" simulations. Companies are testing their Y2K contingency plans in a similar manner. Industry tests of contingency plans will continue throughout the summer and early fall. In the natural gas industry, 84% of local distribution companies and 94% of interstate pipelines have indicated they will complete testing of their contingency plans for critical facilities by September 30. For the oil industry as a whole, 92% of all critical facilities will be tested by September 30. Many oil and gas companies will test their contingency plans from September 8 to 10, in coordination with the electric power drill which is being conducted by the North American Electric Reliability Council. Some oil companies are also participating in Coast Guard contingency drills at domestic ports throughout August and September.

In order to avoid unnecessary disruptions, the entire system will not be shut down for testing. As with the electric industry, individual pieces of equipment can be taken off-line and tested. Some companies have already conducted tests of their contingency plans for response capabilities and processes on a worldwide basis. Domestic, multinational, and foreign oil companies will be participating in a global emergency response simulation sponsored by the International Energy Agency (IEA) from September 28 to 29. The scenario will be developed by the IEA. The basic scenarios for testing contingency plans throughout the sector involve loss of primary communications or electric power. In a typical Y2K contingency plan test, company operators are given a scenario, whereby loss of the public

phone system or Supervisory Control and Data Acquisition system (which monitors and controls the flow of oil or gas) would be simulated, and the contingency plan activated.

The Oil and Gas Sector Working Group is also fostering contingency planning discussions at the industry level by participating in the Council's Inter-Industry Contingency Planning Task Force. This also includes the electric power, telecommunications, and transportation sectors. The group recently released its first report entitled "Y2K Strategies for Managing Interdependency Among Industry Sectors", which is included as Attachment B. The most recent meeting of this group, held on July 21, 1999, focused on how to foster cross-industry information sharing through the Council's Information Coordination Center (ICC).

Data Coordination Efforts

The oil industry is developing a Mutual Aid Command Center (MACC) to compile and analyze reports from individual companies during the rollover to January 1. The MACC will be located at the Department of Energy Emergency Operations Center (DOE/EOC), which will in turn report important data to the ICC, enabling the government to provide a comprehensive picture of Y2K developments nationally. Reporting to DOE will include information on the general health of the industry, including reports on positive passage, minor upsets, and major upsets by sector of business, region or time zone, and identify related equipment/product problems, if known. This information will be updated every four to six hours during the rollover to January 2000.

The Working Group is currently developing standard data points and formats for reporting this information across all segments of both industries. I am urging those associations involved to encourage participation by all of their member companies in the MACC. The Working Group will submit to Lieutenant General Kind, Director of the ICC, a template of key data points for oil and natural gas and urge him to persuade any state reporting efforts either to use this ICC data or to use the same data template in requesting information from oil and gas companies. The Working Group is currently employed in developing a common reporting "trigger" (e.g., a delivery shortfall or safety incident), a template to define incident severity, a way to estimate service restoration time, if known, and ways to identify probable cause (i.e., whether Y2K-related or not). I view this effort as one that provides industry experts with real-time data that can be used to fix problems. The operative assumption underlying the Council's work is that it will be industry, not the government, that fixes any emergent Y2K problems, even though the Federal Emergency Management Agency (FEMA) and the states will also help address emergencies. Based on this assumption, we will persuade all oil and gas companies to submit timely and unvarnished information.

Public Outreach

Efforts by the Oil and Gas Sector Working Group to keep the public informed about the status of industry readiness include: press conferences and technical conferences to

present survey results to the public; a website for the Oil and Gas Sector Working Group, which is maintained by FERC; an oil and gas section for the Council's Y2K phone Hotline (1-888-USA-4Y2K); presentations to various professional associations; and, promotion of Council's "Community Conversations" events. API and the AGA also held communications workshops for their member companies this past spring. Trade groups routinely do outreach by meeting with interested groups, providing speakers at various public forums, and encouraging their member companies to get involved with local "Community Conversations" events.

The Oil and Gas Sector Working Group Website, which displays the oil and gas sector survey results, was redesigned recently to provide additional information to keep consumers up-to-date about our Y2K activities. New web pages were added for consumers, community outreach, and the news media (Appendix C). The new site became operational on July 1, 1999, and can be accessed at <www.ferc.fed.us> or at <www.y2k.gov>.

Recommendations for Action on Y2K Issues

I do not have any recommendations for congressional or other action on Y2K issues at this time, other that to enlist your help this fall in communicating to the public the full scope of our efforts. I understand from our industry participants that the Information Disclosure Act has been quite effective in alleviating some legal concerns regarding information sharing to address Y2K issues. According to John Koskinen, Council Chair, the Oil and Gas Sector

Working Group has been the most successful of the working groups in bringing together a large, diverse number of market participants in an industry that is not highly integrated, vertically, and has little experience with these kinds of coordinated efforts. This entirely voluntary effort has been marked by cooperation between industry and government to solve this common problem, and I believe that the Oil and Gas Sector Working Group will continue to be an effective forum to support and promote industry readiness.

I can commit to this Committee that we will continue our focused efforts. In the final analysis, it is industry that has risked both capital as well as the competitive positions of oil and natural gas companies to prepare for the rollover and assure the public of its readiness. These are powerful motivators.

APPENDICES

A- Summary of May Survey Results

B- Y2K Strategies for Managing Interdependency Among Industry Sectors

C- Oil and Gas Sector Working Group Website/new pages